

REMARKS

Claims 1-22 are pending. Claims 23-38 have been cancelled. Claim 1 has been amended. Claims 2, 3, 21, and 22 have been rewritten in independent form. No new matter has been introduced. Reexamination and reconsideration of the application are respectfully requested.

In the June 13, 2003 Office Action, the Examiner allowed claims 4-19. The Examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(5). The Examiner stated that reference signs 1, 2, 3, 5, and 6 are not mentioned in the description. The Applicants respectfully point out that the reference signs 1, 2, 3, 5, and 6 are described on page 1 of the specification.

The Examiner rejected claim 1 under 35 U.S.C. §112, second paragraph, for insufficient antecedent basis for a limitation in the claim. The Examiner indicated that claim 1 would be allowable if rewritten or amended to overcome this rejection. Claim 1 has been amended to overcome this rejection. The Applicants believe amended independent claim 1 is in condition for allowance.

The Examiner objected to claims 2, 3, 21 and 22 as being dependent upon a rejected base claim, but indicated that such claims would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. By this amendment, the Applicants have rewritten in independent form claims 2, 3, 21 and 22 in accordance with the Examiner's remarks.

The Applicants believe rewritten independent claims 2, 3, 21 and 22 are in condition for allowance.

The Examiner rejected claim 20 under 35 U.S.C. §103 as being obvious over Davies et al., U.S. Patent No. 6,269,203 (hereinafter the Davies reference). This rejection is respectfully traversed.

Independent claim 20 recites:

A focusing optical subassembly for redirecting and focusing a collimated light beam, comprising:

a wedge element that receives the collimated light beam traveling in air;

a spacer element below the wedge element; and

an aspheric lens below the spacer element, wherein the focusing optical subassembly is fabricated of optically transparent material and integrated as a single part using injection-molding techniques, wherein the collimated light beam received by the wedge element travels in air at an angle relative to an axis of the aspheric lens, the wedge element redirecting a chief ray of the collimated beam through the spacer element along the axis of the aspheric lens, the aspheric lens focusing the collimated light beam to a point along its axis.

The Examiner rejected claim 20 under 35 U.S.C. §103 as being obvious over the Davies reference. In so doing the Examiner stated "Davies et al. discloses a focusing optical device including: a wedge element (62) that receives the collimated beam, a spacer element, and an aspheric lens (74), where the assembly is fabricated of optically transparent material and integrated as a single part."

The Davies reference does not disclose, teach, or suggest the focusing optical subassembly as specified in independent claim 20. Unlike the focusing optical subassembly specified in independent claim 20, the Davies reference does not show a

focusing optical subassembly comprising **"a spacer element** below the wedge element; and **an aspheric lens** below the spacer element, wherein the focusing optical subassembly is fabricated of optically transparent material and integrated as a single part using injection-molding techniques, wherein **the collimated light beam** received by the wedge element **travels in air at an angle relative to an axis of the aspheric lens**".

The Applicants respectfully submit that the Davies reference does not teach the invention as specified in independent claim 20. The Davies reference states "FIGS. 1 through 7 illustrate that the present invention utilizes **surface-normal geometry for entry** and exit of light beams into and out of the WD(D)M device." (Col. 7, lines 44-46.) Whereas, independent claim 20 recites that **"the collimated light beam** received by the wedge element **travels in air at an angle relative to an axis of the aspheric lens**". Therefore, the collimated light beam, as specified in independent claim 1, does not enter the wedge element surface-normal but is received by the wedge element at an angle relative to an axis of the aspheric lens.

The Davies reference further states "FIG. 4 illustrates an embodiment of the present invention wherein the refracting element is **a cylindrical lens 68** that is directly mounted to the stack of transmission gratings 70, 71. The cylindrical lens 68 **collimates the input light beam from the source 66**, which is input at the surface normal angle." (Col. 7, lines 55-61.) However, referring to FIG. 4, there appears to be no cylindrical lens 68 only an element 50. There also is no source 66, however, there is a fiber 6 including a core 8. Assuming that the element 50 is a cylindrical lens and the source is the fiber 6, a cylindrical lens cannot collimate a divergent light beam from source 6

which is a fiber. This is physically impossible because a single cylindrical lens has power, i.e. curvature in only one direction. Even assuming that the element 50 were not a cylindrical lens and that it could collimate the input light beam, the collimated input beam never **"travels in air at an angle relative to an axis of the aspheric lens"** as recited in independent claim 20. The Davies reference states that a cylindrical lens 68 is directly mounted to the stack of transmission gratings 70, 71. The cylindrical lens 68 collimates the input light beam from the source 66, which is input at the surface normal angle.

The Davies reference also states "this embodiment also illustrates the use of a curved surface 74 which is molded onto the surface of the substrate 62, for the purpose of providing focusing of the output light beams into the focal plane 76." (Col. 9, lines 30-34.) The Davies reference describes a curved surface 74 but makes no mention whatsoever of **"a spacer element below the wedge element; and an aspheric lens below the spacer element"**. The Davies reference makes no mention whatsoever of a spacer element or an aspheric lens.

Finally, the Davies reference clearly teaches a folded geometry by stating "FIGS. 1, 3, and 4 illustrate that a novel feature of the transparent substrate 2, 42, 62 of some embodiments of the present invention is the use of folded geometry." (Col. 7, lines 16-18.) Independent claim 20 recites an in-line geometry, i.e., a wedge, a spacer element below the wedge, and an aspheric lens below the spacer element.

Accordingly, the applicants respectfully submit that independent claim 20 distinguishes over the above-cited reference.

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Applicants believe that the foregoing amendment and remarks place the application in condition for allowance, and a favorable action is respectfully requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

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Date: September 10, 2003

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